I CLAIM:

1. An LED array assembly, comprising in combination:

a) a grid of electrical conductors,

b) light emitting diodes in association with the grid and in electrical communication with the conductors that provide power for LED operation,

c) the grid operable to receive heat from the diodes during diode operation, and the grid configured for passing coolant fluid for transfer of heat to the fluid.

2. The combination of claim 1 wherein the electrical conductors comprise insulated metal wires that act as electrical and thermal conductors and that also serve as structural load conductors, for arrays of such diodes.

3. The combination of claim 1 wherein the wires are dielectrically coated.

4. The combination of claim 1 wherein the conductors comprise woven wires.

5. The combination of claim 1 wherein the array has at least one of the following:

i) curvature

ii) complex shape

iii) compliant configuration

iv) flexibility.

6. The combination of claim 1 including means to effect and/or guide flow of coolant fluid through or along the array.

7. The combination of claim 1 wherein the grid is dark to increase viewing contrast with LEDs during their operation.

8. The combination of claim 1 including one of the following:

i) a substrate above which LEDs are placed

ii) a superstrate associated with the array and LEDs to provide structural strength to the assembly.

9. The combination of claim 1 including a first sheet facing the diodes, to pass light emitted by the diodes.

10. The combination of claim 9 including a second sheet at the opposite side of the screen and diodes, the first and second sheets forming an enclosure within which coolant fluid is flowable.

11. The combination of claim 1 wherein the electrical combination includes primary conductors extending generally in one direction, and secondary conductors extending generally in another direction,

the LEDs mounted on the primary conductors, and having terminals extending to the secondary conductors for electrical association thereto.

12. The combination of claim 11 wherein the secondary conductors are configured to extend above and/or below the primary conductors.

13. The combination of claim 12 wherein the secondary conductors are characterized by one of the following:

i) substantial spacing therebetween to pass coolant fluid through the grid,

ii) lack of substantial spacing therebetween, to pass coolant fluid parallel to the grid,

iii) cross sections which are substantially less than the cross sections of primary conductors which support diodes,

iv) junctions with diode wires.

14. The combination of claim 1 wherein certain of the conductors include multiple wire strands.

15. The combination of claim 1 including balls or beads seated on the conductors to act as spacers.

16. The combination of claim 1 including means for displacing and conducting coolant to one side of the screen, to flow through or adjacent to the screen.

17. The combination of claim 1 including a transparent panel extending in the path of light from the LEDs.

18. The combination of claim 1 wherein each diode includes a light emitter or emitters, a transparent container having a window area, the emitter supported within the container, and a reflector within

the container to reflect emitted light toward said window.

19. The combination of claim 18 including an electrical lead or leads extending with helical configuration within the container to said emitter or emitters.

20. The combination of claim 19 wherein the lead or leads has or have a generally rectangular cross section, and support the emitter or emitters.

21. The combination of claim 18 including a metallic base carrying the container, and through which said lead or leads extend.

22. The combination of claim 20 wherein said lead or leads include wires associated with a red and/or green and/or blue emitter.

23. The combination of claim 18 wherein multiple of said diodes have their container windows facing in the same or selected directions.

24. The combination of claim 23 wherein the diodes and screen define a display.

25. The combination of claim 21 wherein said base has an edge portion defining a recess for reception of a support for the diode, allowing diode rotation about the support.

26. The combination of claim 25 including electrical conductors defining a mesh, and multiple of said LED devices carried by the mesh, with said recesses receiving portions of said conductors allowing rotation of the devices relative to the mesh.

27. A light emitting diode device, comprising, in combination

i) an electrically energizable light emitter, or emitters;

ii) a transparent container having a window;

iii) the emitter or emitters supported within the container;

iv) and a reflector structure within the container to reflect emitted light toward said window.

28. The combination of claim 26 including an electrical lead or leads extending with helical configuration within the container to said emitter or emitters.

29. The combination of claim 27 wherein the lead or leads has or have a generally rectangular cross section, and support the emitter or emitters.

30. The combination of claim 26 including a metallic base carrying the container, and through which said lead or leads extend.

31. The combination of claim 26 wherein said reflector structure includes spaced reflecting walls, and a curved reflector supported between said walls.

32. The combination of claim 28 wherein said lead or leads include wires associated with a red and/or green and/or blue emitter.

33. The combination of claim 26 wherein there are multiple of said devices having thin windows facing in a display direction or directions.

34. The combination of claim 33 including display structure supporting said diode in a multiple diode display configuration.

35. The combination of claim 30 wherein said base has an edge portion defining a recess for reception of a support for the diode, allowing diode rotation about the support.

36. The combination of claim 1 wherein certain of said conductors that provide power for diode operation comprise first, second and third pairs of wires to transmit electrical energization to red, green and blue LED pixels, respectively.

37. The combination of claim 36 wherein each LED has primary, secondary and tertiary wires electrically connected to the red, green and blue pixels, respectively, said primary wire clamp connected to said first pair of wires, said secondary wire clamp connected to said second pair of wires, and said tertiary wire clamp connected to said third pair of wires.

38. The combination of claim 37 wherein said three pairs of wires are disposed about a central region, and said primary, secondary and tertiary wires are respectively nested between said three pairs of wires, there being a retainer acting to clamp said primary, secondary and tertiary wires in nested position.

39. The combination of claim 38 wherein said certain conductors extend at an acute angle or angles relative to others of said conductors, said certain conductors defining LED addressing conductors to selectively address LEDs on said others of the conductors.

40. The combination of claim 39 wherein said acute angle or angles are approximately 45°.

41. The combination of claim 1 including protective means at one of the following:

i) at the front of the grid;

ii) at the rear of the grid;

iii) at both the front and rear of the grid.

42. The combination of claim 1 wherein said protection means includes at least one metallic plate.

43. The combination of claim 42 wherein said metallic plate is characterized by one of the following:

x_1 forming air passing openings;

x_2 forming air passing louvers;

x_3 forming air passing through slits.

44. The combination of claim 42 wherein said protection means comprises a metallic screen or screens.

45. The combination of claim 1 wherein the diodes are removably supported by the grid.

46. The combination of claim 1 characterized by at least one of the following:

i) diode emission control electronics within diode packages

ii) diode emission control electronics at or proximate an edge or edges of the grid.

47. The combination of claim 1 including a light reflecting mirror or mirrors within diode packages.

48. The combination of claim 47 characterized by one or more of the following:

i) a parabolic mirror

ii) dual mirrors within a package

iii) a parabolic trough forming mirror or mirrors.

49. The combination of claim 1 including a conduit for extensions of the conductors, outside the grid.

50. The combination of claim 49 including spring tension exerting means acting on the conduit.

51. The combination of claim 49 including holders about which end portions of the conductors in the grid are looped, the holders associated with the conduit.

52. The combination of claim 1 wherein the diodes comprise packages having adjustable operative connection to the conductors characterized by one of the following:

i) rotatable adjustability about one axis

ii) rotatable adjustability about two axes.

53. The combination of claim 52 wherein the diodes in the array have different positions of adjusted angularity.

54. An LED array assembly, comprising in combination:

a) a grid of electrical conductors,

b) light emitting diodes in association with the grid and in electrical communication with the conductors that provide power for LED operation,

c) there being LED structure allowing rotary adjustment of at least some LEDs relative to conductors on which those LEDs are supported.

55. The combination of claim 54 wherein said rotary adjustment is characterized by one of the following:

i) about an axis or axes defined by the LED or LEDs

ii) about a conductor axis or axes

iii) about both i) and ii) above.

56. The combination of claim 54 including clip means positioning the conductors relative to which the LEDs are rotatably adjustable.